A NEW GLASS.—Styrole is a volatile oil, obtained by distilling the balsam styrax or storax, although only in small quantity, and has a general analogy to benzoin. In one property styrole is, perhaps, the most extraordinary of substances; a limpid fluid at ordinary temperatures, it becomes a transparent colourless glass when heated up to a certain point, and remains so when it again becomes cool—a circumstance which will draw the attention of optical inquirers to styrole. In distilling storax to obtain this liquid, 20 parts of storax are mixed with 7 parts of carbonate of soda and water put into the retort. In one experiment, 41 pounds of balsam yielded 12 ounces of styrole; in another, 27 pounds yielded 3 ounces. The fresher and softer the storax, the more productive is it of styrole.—*Mechanics' Magazine.*

THE ARCH KNOWN TO THE GREEKS.—Mr. Page has lately presented to the Institution of Civil Engineers sketches made by himself of two arches at Cape Crio (Cnidus, Rhodes). These arches are semicircular, built of large stones, regularly radiating from a centre, without any mortar in the joints, and stand among Cyclopæan remains, of which they apparently form a part. He is of opinion that the Greeks were aware of the properties of the arch. They evidently appreciated its form, for it must have been noticed by all travellers how frequently the flat lintels are cut out on the under side; several specimens of this exist in the sepulchral remains now in the British Museum. At Athens he has noticed a very considerable excavation of a regular arched form through solid marble.

PLANK ROADS IN CANADA.—The experiment of planking public roads has been successful in an eminent degree in Canada. One between London and Port Stanley, 30 miles long, is already finished, and another now constructing between Port Dover and Hamilton, 50 miles long, and a third between London and Hamilton, 80 miles in extent, are now under contract. They are laid for double and single tracks, the expense of the former being 4,000 dollars, and the latter at 3,000 dollars per mile. The roads already constructed are expected to last ten years.

VENTILATION OF COMMONS' COMMITTEE ROOMS.—It is surprising that members can be found to subject themselves to the evils resulting from the want of ventilation in the present committee rooms. As one honourable member observed to us lately, if a workhouse could be found as ill ventilated as these rooms are, the journals would blazon it all over England, and force an improvement.

THE ROYAL RESIDENCE AT COWES.—The first stone of the new building about to be erected at Osborne House was laid on Monday last by her Majesty and the Prince of Wales.

WORKS OF FINE ART IN WESTMINSTER HALL.—This exhibition will be opened to the public on Monday next. There is a private view to-day, Saturday.

NOTICES OF CONTRACTS.

[We are compelled by the interference of the Stamp Office to omit the names of the parties to whom tenders, &c., are to be addressed. For the convenience of our readers however, they are entered in a book, and may be seen on application at the office of "The Builder," 2, York-street, Covent-garden.]

For the execution of a New Harbour at Greenock.

For the construction of Two Divisions of the Chester and Holyhead Railway, being Nos. 8 and 12. No. 8 contains a length of 7 miles and 54 chains. No. 12 contains a length of 5 miles and 26 chains.

For excavating and levelling Land, building Sewers, making a new Road, &c., on the Wheatley Estate, Erith, Kent.

For lowering and making certain Improvements at the Yeuston Hill, Henstridge, Somerset.

For the Removal of several Wrecks in the Thames.

For the Erection of a New Church in the parish of Whitechapel.

For the Erection of Schools and a Teacher's Residence in connection with the new church of St. Jude, Whitechapel.

For the Repairs to the South Aisle, Roof, &c., of St. James's Church, Bury, St. Edmunds.

For the Erection of New Schools at Great Chesterford, Essex.

For the supply of 2,500 Yards run of flat Granite Curbing for the Parish of St. John, Hackney.

For some additions to the House of Industry at Norwood.

For the supply and erection of a Steam Cooking Apparatus at the New Workhouse at Cuckfield. To be capable of cooking food for 450 inmates, and providing Hot and Cold Water in the Scullery, Bath-rooms, and Wash-house, with a Closet for drying linen.

For furnishing and fixing an Engine Pump at the Sevenoaks Union.

For Paving certain of the Foot-paths of the Parish of St. John, Hackney.

For Building the intended Somerset Lunatic Asylum. (Time extended).

For taking down and removing the House, Outbuilding, and Offices, erected by the Rev. W. H. Gorton, in a field at Portisham, Dorchester, and rebuilding the same on the glebe land adjoining the Church-yard there.

APPROACHING SALES OF WOOD, &c.

BY AUCTION.

In the parishes of Terling and Fairsted, Essex: 215 Capital Oak, and 11 Ash Timber Trees, many of them of large dimensions.

At Norton Hall, and Purleigh Round Bush Farms, Essex: an assortment of Oak, Ash, and Elm Timbers and Whips.

At the Crown and Anchor Inn, Ipswich: the Martello Tower, situated on the point of Bawdsey, Suffolk. The materials arising therefrom could at a trifling expense be conveyed to any part of the kingdom.

At Dinton Park, and Lutton Mandeville, Wilts: 93 capital Oak Trees, some of large dimensions, 250 Oak Flitterns, 200 Ash and other Poles, &c.

In Shirley Park, near Croydon: 2,000 straight Poles, and 8,000 Bavins, Fir, Oak, Elm, Chesnut, and Alder, but principally Larch of 35 years' growth.

At Sibley's Farm, Chinckney, Essex: 40 fine Oak, 47 large Elm, and 50 Ash Timber Trees. Most of the trees are of large dimensions and good quality.

At Blois Farm, Sible Hedingham: about 800 Oak Trees.

At Fyfield Farm, near Pewsey, Wilts: 60 Oaks, 111 Elms, and 103 Ash and Abeles. They are of extraordinary dimensions and fine quality.

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TO CORRESPONDENTS.

"B. A."—*Mr. Eastlake's letter to Sir R. Peel, on National Gallery, may be obtained at Mr. Murray's, Albemarle-street.*

"A Constant Reader."—*As to river wall, we should use Roman cement.*

"B. Green."—*We have received the communication, but have not had time to examine it. We will give it most kindly consideration.*

"Bedroom Ventilation."—*In answer to our correspondent last week, "A Mason," we beg to direct his attention to an advertisement of "Baillie's Patent Slide Ventilator;" recommended by Mr. Reid, brother to Dr. Reid, as the one for which probably he was making inquiry.*

"W. J. S."—*We are not disposed to publish the sketches sent. They are left at the office, with our thanks.*

"A. B."—*Berman's History and Art of Ventilating gives much valuable information.*

"Mon. F."—*We are fully disposed to entertain the proposition, and will write shortly.*

"Philo-Alpha."—*Received.*

"F. T."—*Received, but not yet read. Our correspondent shall hear from us.*

"Inexperience."—*Renew the weather-boarding a piece at a time. An external enclosure may be at all times repaired with materials of the same sort as those of which the enclosure has been built—schedule D, part II.*

Received: "B. B." "H. T." "*Humanitas*," "*A Constant Reader*," "*W. G. Pinkey*," "*Bunnett and Corpe.*"

ADVERTISEMENTS.

Just published, price 8s., neatly bound in roan, with tuck, gilt edges, and lettered, a Pocket Edition of

A CYCLOPÆDIA of the NEW METROPOLITAN BUILDINGS ACT, together with the Act itself, a Folio Table of the Metropolitan Districts (old and new), a List of the Surveyors, with their Residences and Offices, and a Table of Fees to be paid to the Registrar for services performed.

In the Cyclopædia all the details of the Statute are arranged Alphabetically, so as to be instantly found, and accompanied by extensive references and counter-references to the sections of the Act itself and its minute provisions.

By the late A. BARTHOLOMEW, Esq., F.S.A., Architect, Surveyor of the Hornsey District.

Published at the Office of "The Builder," 2, York-street, Covent-garden; and to be had of all Booksellers.

ROYAL POLYTECHNIC INSTITUTION.—A WORKING MODEL of the ATMOSPHERIC RAILWAY, capable of carrying visitors, is lectured on and exhibited daily, and also in the evenings. During the week Dr. Bachhoffner will lecture daily at a quarter past Three, and on the Evenings of Monday, Wednesday, and Friday at Nine, on the causes of STEAM-BOILER EXPLOSIONS; and especially those arising from incrustation, with the means of prevention. Among the Novelties recently introduced is a full-sized Cast from the CENOTAPH of GALEN, in which the PORTLAND VASE was found; a curious MECHANICAL HAND; new and beautiful Objects in the Chromatrope, Phasioscope, Proteoscope, &c. New Dissolving Views: Submarine Experiments by the Diver and Diving-Bell; Working Models described daily. Admission, One Shilling; Schools, half-price. A Class for instruction in Mathematics is about to be formed under the direction of Mr. A. W. Hobson, B.A., of St. John's College, Cambridge.

NOTICE TO INVENTORS.

OFFICE FOR PATENTS OF INVENTIONS and REGISTRATIONS of DESIGNS, 14, Lincoln's-inn-fields.—The printed INSTRUCTIONS gratis, and every information upon the subject of PROTECTION for INVENTIONS, either by Letters Patent or the Design Acts, may be had by applying personally, or by letter, prepaid, to Mr. ALEXANDER PRINCE, at the office, 14, Lincoln's-inn-fields.

PRIZES IMPORTANT TO INVENTORS AND PATENTEES.

A GOLD MEDAL, value 100*l.* and a SILVER MEDAL, value 50*l.*, will be given by Mr. M. JOSCELIN COOKE. The Gold medal for the best Patent, and the Silver medal for the best Design taken out or Registered at the OFFICE for PATENTS and DESIGNS, 20, Half-Moon-street, between the 1st of November, 1844, and the 1st of June, 1846. The Prizes will be awarded by competent judges on the 10th June, 1846. The conditions to be observed, together with instructions, charges, and every information for obtaining Patents in England or Foreign Countries, or Registering Designs, will be forwarded gratis, on application to Mr. M. JOSCELIN COOKE, at the Office for Patents and Registration of Designs, 20, Half-Moon-street, Piccadilly, London.

VARNISH.—It has long been a desideratum amongst the consumers of Varnish to obtain a good and genuine article; brilliancy, facility of drying, hardness, and durability are the qualifications necessary, but these are seldom if ever found united. The experience of a life-time devoted exclusively to the manufacture of this article, the great and important discoveries of modern chemistry, and the daily improvements in machinery, have enabled Messrs. George and Thomas Wallis to produce Varnishes (both oil and spirit) unrivalled in every respect, and they confidently recommend them to the trade, as deserving of notice both in price and quality.

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Many substances have been used and much time spent in endeavouring to find a cure for a bad Knot, but hitherto without success. Messrs. Wallis therefore feel much pleasure in offering to the public an article so long and anxiously called for.

In the application, skill is not required; a boy can use it as well and effectually as the best workmen: it is put on to the work with a brush like common paint, can be used in all climates and situations, and does not require heat.

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THE PROJECTED RAILWAYS.

ANALYSIS of the PATENT METALLIC SAND, or English Pozzolano, used in the foundations of the New Houses of Parliament, the great Tunnels on the Birmingham Railway, Sea-wall on the Great Western Railway in Devonshire, and other important works referred to more particularly in the prospectus.

Silica	49	Lime	6
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Used as an external Stucco the Metallic Sand Cement is unaffected by frost or wet; in appearance it resembles the best Portland Stone, requires neither colour nor paint, and is entirely free from vegetative cracks and blisters.—Further Particulars on application to Mr. C. K. DYER, 4, New Broad-street, London; and at the Metallic Sand Wharf, King's-road (opposite Pratt-street), Camden Town.

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